

A. Claims 11, 13, 17, 23, and 33

The Office Action acknowledges that Watanabe does not teach using pressurized hydrogen to hydrogenate a ketone compound. See page 4. However, the Office Action asserts that it would have been obvious to an ordinarily skilled artisan to modify Watanabe's process to include Ikariya's process of hydrogenating a carbonyl compound by using pressurized hydrogen or a hydrogen donor in the presence or absence of a base and a ruthenium complex. See page 5. Applicants respectfully disagree.

An ordinarily skilled artisan would not have had any reason or rationale to modify Watanabe's process to include Ikariya's hydrogenation process. Watanabe discloses a process for producing an optically active amino alcohol by reacting a nitro ketone or a cyano ketone with a hydrogen-donating compound in the presence of a metal compound catalyst. See Abstract. Watanabe teaches that the metal compound catalyst may be a specific ruthenium complex, such as a chloride, amide, and hydride ruthenium complex. See col. 20, line 35 to col. 21, line 55. Watanabe's ruthenium complex has three ligands, i.e., a single anionic ligand, a tosyl diamine ligand, and p-cymene. *Id.*

In contrast, Ikariya discloses a ruthenium complex useful as a catalyst for producing optically active alcohol compounds in high yields and selectivity. See Abstract. Ikariya's ruthenium complex has four ligands, i.e., two anionic ligands, a diamine ligand, and a diphosphine ligand. See paragraphs [0006]-[0014]. Thus, the ruthenium complexes of Ikariya and Watanabe have different structures. Accordingly, an ordinarily skilled artisan would not have had any reason or rationale to modify Watanabe's process suitable for a ruthenium complex having three ligands to include Ikariya's hydrogenation process suitable for a ruthenium complex having four ligands.

Furthermore, an ordinarily skilled would not have modified Watanabe's process to include Ikariya's hydrogenation process with any reasonable expectation of success.

Specifically, an ordinarily skilled artisan would not have reasonably expected that using pressurized hydrogen in the absence of a base using a ruthenium complex having three ligands would produce the same results as Ikariya's process (i.e., hydrogenation of a ketone compound) suitable for a ruthenium complex having four ligands. No such evidence is disclosed in the record. Indeed, Applicants discovered, for the first time, that asymmetric hydrogenation can be achieved with 90% ee and 63% yield using pressurized hydrogen and a ruthenium complex having three ligands, i.e., a single anionic ligand, a diamine ligand, and p-cymene. See specification at Example 1.

B. Claim 32

Claim 32 requires that the ketone compound is a ketone having a halogen substituent at α -position, a chromanone derivative, a diketone, a ketoester, a ketoamide, or an indanone. The applied references would not have rendered obvious a process using the recited ketone compound. At most, Watanabe discloses a process using nitro ketone and cyano ketone. See co. 3, lines 59-67; and col. 8, line 60 to col. 18, line 13. Ikariya discloses a process using a generic carbonyl compound. See paragraph [0015]; see also MPEP §2144.08(II) (stating that "[t]he fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness."). The only specific carbonyl compound disclosed in Ikariya is acetophenone. See Examples 11-15. Thus, the applied references would not have rendered obvious the recited ketone compound.

Moreover, the specification provides a showing that the recited ketone compound is asymmetrically hydrogenated with sufficient % ee and % yield. See Examples 1-54. As discussed above, Watanabe does not disclose the recited ketone compound. There is no evidence of record that all carbonyl compounds, as disclosed in Ikariya, can be asymmetrically hydrogenated. Thus, an ordinarily skilled artisan would not have had any

reason or rationale to hydrogenate the recited ketone compound with any reasonable expectation of success in view of the applied references.

C. Conclusion

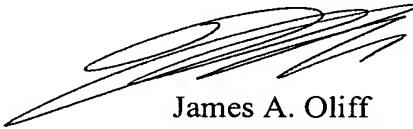
For at least these reasons, the applied references would not have rendered obvious claim 11, and its dependent claims. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:
Petition for Extension of Time

Date: April 13, 2011

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